501 edge it to have been learned from their Tupian neighbors, the Apiaca. In early times, this bark canoe was used only to cross large streams when on a war expedition. Small [481 491] streams were crossed either on fallen logs or by swimming. Today, canoes are in greater use, but very few are owned among those Mundurucú of the savannahs.

226 132 An additional factor limiting fishing is that the annual rains cause the rivers to overflow their banks allowing the fish to disperse through the forest in search of fallen berries and fruits. During this season, fishing is very difficult throughout the entire rain forest region, even for those people having canoes. For the Mundurucú, who had to fish from the river banks, it was a sheer impossibility. The Indians of the present village of Cabruá complain that they have no canoes and that to fish during the rainy season would involve wading through the igapó, or flooded forest, impractical due to poisonous and constrictor water snakes, covered roots and logs, and the virtual assurance of failure.

226 Dry season fishing was done by two means. The first of these was to fish from the river bank with bow and arrow. To facilitate this technique, platforms were often built on the limbs of trees overhanging the water. The Mundurucú have great skill in fishing with the bow and arrow, and it [177] is still preferred to the hook and line, which was introduced by the whites and is only used during the rainy season when the fish are scarcer and at a greater depth.

222 Climbing was done with climbing rings, a
[#8] loop of vide passed around the feet causing sufficient pressure of the feet against the sides of the trunk to enable the climber to ascend the tree lightly by a series of jumps. For fruits located far out on limbs, hooked sticks were used to drag the limbs down or the climber chopped the limb off. These fruits were not a staple, but they were a valuable adjunct to the diet and a greatly appreciated delicacy.

24 Horticulture

Munduruçú gardening was done by the slash and burn method used all over the tropical areas of the New World. The garden was cleared of trees and underbrush at the end of the rainy season, the felled vegetation was allowed to dry throughout the dry season, and the plot was burned over before the first rains. Burned branches and the smaller trunks were dragged off to one side and the ground was then ready for planting after the first rains, usually in the beginning of September in this region.

Among the plants of New World origin planted by the Munduruçú were several varieties of bitter manioc (Manihot utilissima) and sweet manioc (Manihot aypi), yam (Dioscorea sp.), sweet potato (Ipomoea batatas), maize, beans, squash, pineapple, and pepper. At some time after the advent of the
[77] whites in the Western Hemisphere such plants as banana, rice, potato, and sugarcane were introduced. Cotton, although native to the New World, was not adopted and used by the Munduruçú until the 19th century. The staple garden product and chief starch source of the Munduruçú was bitter manioc.

12: Murphy E-5 (1952-1953) 1960
SQ13 Mundurucu SQ13

222 articles collected are several species of palm fruit, the Brazil nut, the fruit of the *cajú* tree (*Anacardium corymborum*), wild cocoa, *manguba*, and several varieties of berries.

222 462 Wild foods found only at long distances from the village are always gathered by the men on the way home from hunting, especially if they have been unsuccessful. When the fruit trees are near the village, one man or an older boy usually goes out with a party of women, the male to climb the tree and get the fruit, the women to carry it home. Climbing is done with the climbing ring, a loop of vine passed around the feet, which gives sufficient pressure of the feet against the sides of the trunk to enable the climber to ascend the tree lightly by a series of jumps—similar to the principle employed by our lumbermen using a belt. For fruits far out on limbs, hooked sticks are used to drag the limbs down, or the climber chops the limb off. Fruits are not a staple food, but they are valuable adjuncts to the diet and greatly appreciated delicacies.

HORTICULTURE

241 Mundurucú gardening is done by the slash-and-burn method used throughout the tropical areas of the New World. The garden is cleared of trees and underbrush at the end of the rainy season, the felled vegetation is allowed to dry during the dry season, and the plot is burned over before the first rains. Burned branches and the smaller trunks are dragged off to one side and the ground is then ready for planting after the first rains, which usually occur in the beginning of September in this region.

241 262 Among the crops of New World origin planted by the Mundurucú are several varieties of bitter manioc (*Manihot utilissima*), which form the dietary staple, sweet manioc (*Manihot aypi*), yam (*Dioscorea sp.*), sweet po-